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## (56) Documents cited

GB 1542299  
GB 1334018GB 1251304  
GB 1198976US 3797110  
US 3750285

## (58) Field of search

B4B

Selected US specifications from IPC sub-class B26B

## (54) Razor blade

(57) A razor blade 1 has a cutting edge 2 consisting of a number of cutting portions 3 separated by non-cutting portions. The latter may be in the form of beads 4 or ribs (5, Fig. 2). Alternatively non cutting portions are provided by a slotted guard (9, Fig. 3) of e.g. plastics, metal or waxed paper. The arrangement of cutting and non-cutting portions enables a close shave to be achieved with less tendency to snagging or cutting of the skin than with conventional razor blades.

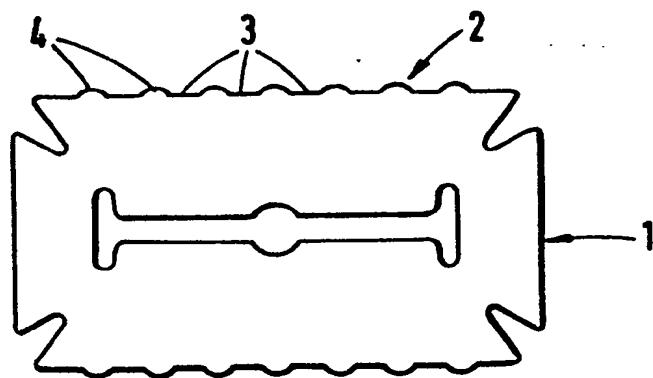


Fig. 1

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The drawings originally filed were informal and the print here reproduced is taken from a later filed formal copy.

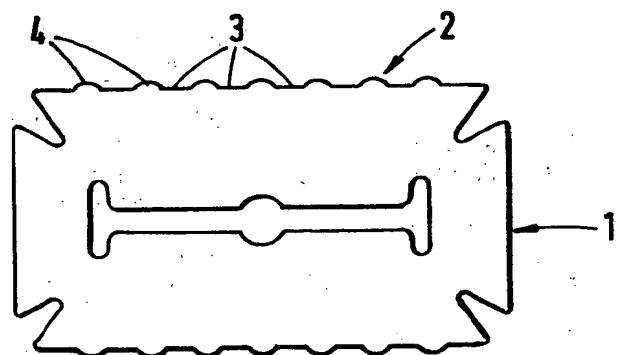


Fig. 1

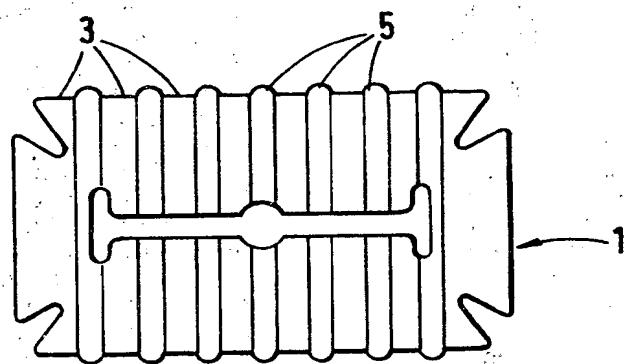


Fig. 2

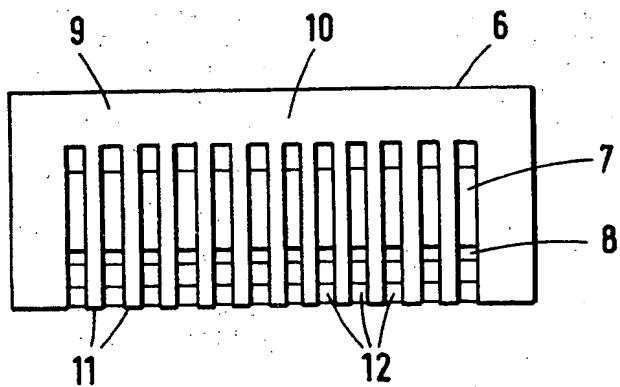


Fig. 3

## SPECIFICATION

## Device

5 This invention relates to a blade for a shaving razor, and in particular to a blade having improved safety features.

Conventional shaving razors tend to provide a 'closer' shave than electric shavers, but the latter are far less prone to cutting and snagging the skin. It would clearly be useful to have a razor which could combine the 'close' shave advantage of the conventional razor, with the safety aspect of an electric razor.

15 It has now been found that the cutting edge of a razor blade can be modified in a simple manner to achieve the above mentioned twin advantages, without substantially sacrificing the quality or closeness of the shave.

20 Accordingly, the present invention provides a razor blade having a cutting edge which is interrupted along its length by a plurality of non-cutting portions, thereby providing a series of spaced cutting portions along the edge.

25 Preferably, each non-cutting portion is slightly thicker than each cutting portion. This permits the cutting portions to contact the base of each hair when the blade is pressed against the skin, while preventing the cutting portions from cutting into the skin.

30 Preferably, each cutting portion of the blade is from 1 mm to 2 mm wide.

The number of cutting portions can vary 35 within wide limits, but preferably there are from 2 to 5 portions per cm of blade spaced apart along the blade edge by non-cutting portions.

35 The non-cutting portions can be formed in any manner which results in the elimination of their cutting ability. Preferably, the non-cutting portions are provided by beads or ribs formed on the blade, the beads or ribs being slightly rounded at the leading edge to permit the 40 blade to glide smoothly over the skin.

45 Alternatively, the cutting and non-cutting portions may both be provided by a slotted mask of thin plastics, waxed paper, or metal which is designed to fit over the continuous cutting edge of a conventional blade.

50 Preferably the slotted mask is constructed of material which is from 0.1 mm to 0.2 mm thick.

55 In a further form of the blade of the invention, the non-cutting portions may consist of the full thickness of the body of the blade, while the cutting portions may be honed areas between the non-cutting portions.

60 In this form, the non-cutting portions may be rounded at the leading edge to permit the blade to glide smoothly over the skin.

65 In a further aspect of the invention, there is provided a shaving razor comprising a razor blade according to the invention and a holder for the blade.

Preferably, the cutting and non-cutting portions in the shaving razor are provided by a slotted guard on the blade holder which is located adjacent the blade cutting edge.

70 The slotted guard may be formed as part as the holder, or may be detachable therefrom so as to provide a conventional blade edge when removed.

The detachable slotted guard is itself a yet 75 further aspect of the present invention.

In a particularly preferred aspect of the shaving razor of the present invention, there are two partially overlapping blades arranged in the holder to provide a double cutting edge,

80 and a slotted guard overlying the blades.

In this aspect, the cutting edges and non-cutting edges of the overlapping blades can be staggered to present a continuous cutting area.

85 The invention is now described by way of example with reference to the accompanying drawings, in which:

Figure 1 is a plan view of a blade with non-cutting portions formed by beads;

90 Figure 2 is a plan view of a blade with non-cutting portions formed by ribs; and

Figure 3 is a plan view of the blade holder of a shaving razor containing two blades which are covered by a slotted guard.

95 Referring to the drawings Fig. 1 shows a razor blade 1 of conventional shape and size for use with a conventional, hand held safety razor. The cutting edge 2 consists of eight cutting portions 3, each approximately 2 mm wide, and seven rounded beads 4 which constitute the non-cutting portions. The opposite cutting edge of the blade 1 is similarly formed with alternate beads 4 and cutting portions 3.

100 Fig. 2 also shows a conventional size razor blade 1 having seven non-cutting portions formed by slightly raised ribs 5, which encircle the blade 1. Eight cutting portions 3 are provided on each cutting edge.

105 Fig. 3 shows a holder 6 containing two overlapping blades 7, 8, the holder 6 being an integral part of or attachable as a snap fit onto a handle (not shown) to provide the complete razor assembly. The holder 6 and its associated blades 7, 8 constitute a replaceable 110 cartridge of the type manufactured by Wilkinson Sword and sold under the trade mark "Profile".

115 Alternatively, the whole assembly including the handles, may be a single unit of the type marketed by Gillette as "a fixed head disposable" razor.

120 The holder 6 is shown modified by a detachable guard 9 made of thin plastics material which snaps into position over the holder 6 and is retained thereon by the resilience of the plastics. The guard 9 consists of a main body 10 from which extends a number of parallel fingers 11, these overlying the exposed edges of the blades 7, 8. In this manner, the portions of the blade cutting edge which are con-

sealed by fingers 11 constitute non-cutting portions, while the exposed parts of the edges in slots 12 between the fingers 11 constitute cutting portions.

5 It will be appreciated that the numbers and sizes of fingers 11 can be adjusted to obtain the optimum shaving characteristics without departing from the scope of the invention.

#### 10 CLAIMS

1. A razor blade having a cutting edge which is interrupted along its length by a plurality of non-cutting portions, thereby providing a series of spaced cutting portions along

15 the edge.

2. A blade according to claim 1, in which each cutting portion of the blade is from 1mm to 2mm wide.

3. A blade according to claim 1 or claim

20 2, in which there are from 2 to 5 cutting portions per cm. of blade.

4. A blade according to any one of claims 1 to 3, in which the non-cutting portions are provided by beads or ribs formed on the

25 blade.

5. A blade according to any one of claims 1 to 3, in which the cutting and non-cutting portions may both be provided by a slotted mask of thin plastics, waxed paper or metal

30 which is designed to fit over the continuous cutting edge of a uniform edged blade.

6. A shaving razor comprising a razor blade according to any one of claims 1 to 5, and a holder for the blade.

35 7. A razor according to claim 6, in which the cutting and non-cutting portions on the razor blade are provided by a slotted guard on the blade holder.

8. A razor according to claim 6 or 7 in

40 which there are two partially overlapping blades arranged in the holder to provide a double cutting edge.

9. A razor according to claim 8, in which the cutting edges, and non-cutting edges of

45 the overlapping blades are staggered to present a continuous cutting area.